

Common Disease - by milk.

1. Bovine T. B. by pasteurization

1. 9.6% ~~Caused by~~ still infects Children under 4 yrs. Preventable

2. Ingestion in udder

3. Controlled by pasteurization.

2. Typhoid & Paratyphoid Fever

1. Most frequent.

2. " Cases from new milk.

3. Septic Sore Throat, flu, scarlet fever from streptococcus in milk

4. Undulant Fever in U. S.

Supervised Herd Plan. -

1. Any owner can have his cows T. B. tested.
2. All positives must be slaughtered.
3. No compensation.

Accredited Herds -

1. Herds must that have passed 2 clean tests at intervals of 6 mo. or if positives are found - intervals of 6 mo.
2. " " " " herd is tested " " "
3. Man must have 10 cattle reg. & have a membership in Accredited Herd Plan.

Bang's Disease

1. High in animals
2. Communicable to humans.
3. 1896 Prof. Bang - Denmark.
4. If they have disease - branded & isolated.

Herds - Only definite way of detecting animal diseases.

Controlling Contamination of Milk.

i. Sediment Test

- a. overstressed. B. could visible to eye but doesn't show presence of dissolved dirt or infection & coming to dairy.
- c. Chlorine cleaning insufficient at farms.

ii. Cooling -

- a. cans immersed in ice or water & thermometer.

iii. Control of Pasteurization

1. methylene blue reduction test.
2. Coliform Test
3. Phosphate "

Producer & Safe Milk -

1. Responsib - Health of animals, sanitation.
Provision for even supply & reg. daily delivery
of milk to urban cities.

2. Eradication of Bangs, mastitis & Bovine T. B.

3. Pasteuriz will make milk from diseased animals
safe - but not dirt laden milk clean.

4. Hay supply in barn, dust or stable conditions
- roper milk.

5. Feed carefully & flavours, reg. for supply & scientificity
& quality of milk & animal.

6. As soon as milk drawn - cooled to 40 or $50^{\circ} F$.

Cleansing & Disinfection in Small Dairy -

Cleansing - process whereby an unclean
surface action of detergent sol. to remove
all visible dirt.

Disinfection - subsequent treatment rec. 2
destroy remaining bacteria or visible contamination.

Way of Assuring a Sanitary Dairy -

1. Possession of plant & equip readily cleaned.

2. Desire of intelligent dairyman for cleanliness.

3. Use of compounds which R good detergents &
good rinsing properties. Hand washing - free
from hydroxide.

4. Disinfecting Agents - steam, hot water, chemical
sterilizer, Chlorine with steam or hot water.

5. Equipment cleaned right after process
operations - rinsed, soaked & brushed with warm
washing sol. - rinsed again with H_2O - & a
satisfact. bactericidal treatment (Chlorine) 100
parts per million of chlorine - contact periods - 2 min.

6. All piping removed daily.

7. Bottles - washed by hand or machine.

where no Steam - motor driven brush & 3 compart-
ment wash & rinse tank. Then rinsed again in
warm H_2O & disinfected in a chlorine sol;
 H_2O - $110^{\circ} F$. 211

Mechanical Washing - H_2O Sol. - $120^{\circ}F.$
1st rinse - $150^{\circ}F.$
2nd " - $180^{\circ}F.$

8. Can Washing & Sterilizing - Same as
bottles in small dairy - steam sterilizing.
Rinses carefully cleaned.

9. Periodic checks - visual & lab tests -
milk tested. Bottles, cans, etc. Consists of
rinsing with a known quantity of sterile H_2O &
making a standard plate count of the final
water.

Diseases Due to Deficiency of Food Report 9

Body needs food - growth
body .. & metabolism
energy.

2 Classes:-

1. Fuel
2. Building

most common foods contain both - milk.
Many only one - starch, fuel.

Cause of malnutrition various.

1. worry.
2. lack of Ex.
3. senescence
4. low income.
5. not knowing.

Substances of unknown composition found in foods
& essential to norm. nutrient & growth.

Vit A - ^{lack} - xerophthalmia - disease of eye.
night blindness.

cod liver oil, green veg.

Vit B - Beriberi - cardiac weakness, edema,
peas, beans, yeast, milk, eggs & various
meats. Beriberi in Orient by 2 much rice

" B₁ - ^{thiamin} - disease of ^{nerves} ft. ?
stimulates appetite & imp. in maintaining
moisture of digestive tract.

B₂ - B₄ - B₅ - Imp. to mammals.

B₂ or B₆ - Pellagra - ^{niacin} - nicotinic acid.
gastro-intestinal
painful skin - nervous & mental disturbances

& red buff & veget. Often develops on basis of other disease
Common in U.S. A & Eur. C. A & B. W. I.
T.B. Syphilis, etc.

Prevention

Vit C - scurvy - contained in milk & destroyed
by heat. Chatterister - hemorrhages.

Found in fresh fruit - raw veg.

Vit D - rickets - marked alterations of bones -
soft & pliable - lack of deposit of
norm. const. Signs - Conspitition,
irritably. Not in sunny places

Prevention - lots of exposure to sun - esp. in winter.
mercury-vapor arch lamp or

cod liver oil.

Vit E - reproduction ?

Cotton seed oil, lion meat, wheat
germ oil, lettuce, etc. leafy veg.

Vit K - essent. for substances & clotting of
blood. def. - blood loses power to
clot. methyl - raphtyl - germinine.

Goiter - thyroid - lack of iodine

more frequent { during fetal life
puberty 6 times as frequent in fem as male.
pregnancy
Endemic - in vicinities where there is less iodine. Exophthalmic - a
rare condition in individuals.

Diabetes - 34. loss of wt.
Nephritis pat. weak

Deficiency of correct production of insulin
of pancreas.

Accumulation of fatty tissue in body.

Indulgence, overeating tho' sometimes hereditary.

Ventilation.

Report 10.

Air - Car di .04%
O₂ - 20%
N - 80%

1. Movement - free moving safe.

Draught beneficial.

Temp. Humidity & motion - imp. - not composition

Temp. raised by bodies.

Good vent - cool air - not cold

Humidity relative to temp.

Constantly increased by moisture of human body.

Treating impure air by contact of outside air.

Impure air comes from our bodies - breathing, etc.

Industrial Ventilation.

Natural System -

Mechanical system - air moved by fans.

Duct - collection close to source as possible.

Methods - Suck air by fans - suck out old air.

Windows on 2 sides of room.

In Mines - 1. Safety for underground workers.

2. To remove gases & dust.

3. To provide air flow during emergency.

Object of Ventilation.

1. Keep air continually changing in room.
2. Even temp - 68° F.
3. Avoid excessive dryness.

Suggestions for good Vent.

1. Have them placed away from radiators.
2. Open Wind. Top & bottom.
3. 400 cu
4. Engulf heat & constant circulation

5. Ventilate by several small openings instead of 1 large one.
 6. Bedroom windows were opened.
 7. Kitchen well aired - not fumes this house.
 8. Place humidifiers placed in room near radi.
- Air breathed in 68° - warmed to body temp.

Tests -

1. Comfort of occupants.
2. Ability of those in Room 2 work.
3. General health of " " "
4. 2nd School - if floor cold - badly ventilated.

all effects Experienced by Body in bad vent.

causes:

1. elevation of body temp.
2. Increase in reclining heat of body.
3. slight lowering of blood pressure.
4. no effect on rate of respiration acidosis of blood or disorientation of O₂ - hemoglobin and rate of metabolism.
5. Inclination

Stagnant air - Lack of appetite - Area of stagnant air around body producing effects by excess body heat

Outdoor

20.81 O₂
79.51 Nitrogen
200.03 CO₂

Volume

16.03 O₂
79.55 N₂
4.38 CO₂

Proper Standards for Dwellings

Adequate light & ventilation

Sanitary provisions.

Fire protection

light & Vent made certain by

1. limiting proportion of given city lot which can be used for dwelling. 15% corner lot 25% on interior side yd - open 2 sky. Every room, window and doors. Every room at least 40 sq ft - no less than 7' high.

Running water & indoor flush toilets.

Detailed safeguards & fire - construction, methods maintenance - cleaning & care of halls & cellars.

Disposal of ashes & garbage.

Prohibition of animals on premises.

Storage of inflammable mat.

Shaded not favorable & garden.

Cellars - Musty - cleaned - air & whitewashed 2 x a yr. Exposure & light. Realistic pos. of cesspool & well imp. Facing to sun - S.E. or S.W. Art. light - 2 little or 2 much. (Electrical convenience) 1. easily & safely adjusted to more con. post. 2. doesn't completely heating & ventilating as gas & oil.

Heating - depends on humidity, ventilation & tempTemp. - 68° F. above 70° F. - effects

1. dull & listless - hinders work.
2. Decreases resistive power of mucus membrane.
3. Makes body less able to meet changes in temp.

Below 64° F. -

1. Lowers body resistance to disease.
2. Slows rate of metabolism.

Ways of Preventing Heat Loss

1. By weather stripping.
2. " insulating walls.
3. Storm windows.

Types of fuel - gas - oil & coal.

Principle of Central Heating.

Heat burned - heat carried from source as
hot air & water or steam to all parts of building.

3 ways of sending heat to room.

1. warm air registers.
2. Steam radi.
3. Hot water

1. Warm air system - recirculating from house or floor or outside of room. Motor fans.
2. Steam system - condensation of S. in radi. Enters from top - pipe or other end at bottom allows it to trickle back to furnace as water.
3. Hot water System - Must be full of H₂O - no air. Tank & overflow.

Food in Home -

1. Kitchen - most sanitary - large & airy - sink with H. & C. H₂O - Well screened & ventilated.
2. Cook - cleanliness - Particular in personal hygiene. Free from disease - skin, T. B. typhoid, etc.
3. Sinks, cups, etc - spotless - free from insects.
4. Preparing food -
 1. lick fingers
 2. cough over food.
 3. dip spoon back in.
 4. Sweep when food out.
 5. Wash all fruits & veg.
 6. Rinse of milk top.
6. Refrid. - Imp. - keep milk, etc. Spotless. Kept covered.

C. Cooking - develop flavor & appearance
Increase digestibility - Kill bacteria.

Cleaning in Home -

1. Cellar - not dark & damp. - food stored.
Easy & clean. Whitewashed.

2. Bathroom - Toilets cleaned & filled
with H_2O . Care with cold-taps, etc.
Cleaned often & carefully. Clean individ. towels.
Hab. on each floor & frequent hand washing.
If cold soaked with ammonia, alcohol, etc.
Boarding Houses - paper seats & toilets & good
care of tub. Shower & large no. well aired.
Cleaning - Vacuum. no spring housekeeping.
Dusting cloth damp or oil.

Floor - clean cloth with kerosene. Wax - holds dust.
Clean dishes - scraps removed - rinsed - use soap.
Rinsing H_2O - nearly boiling. - Change water often.

3. Wash Trucks - clean & fresh - Dashed after each meal.
Never left in wet ball. More & 1 imp used - dry
wheels in sun. Wash pans clean.

Personal Articles - infections Lankin, etc. Boiled -
Quin in steam & cleaning helps.

P.Dts - Quarters free from odors & clean.

Cats & dogs susp. to whooping cough.

carried deep in throats

dogs often tape worms.

Dogs on chairs, cushions, etc dangerous.

Wanger from Rabies. imp.

Psittacosis - from pet birds.